

FIRST RECORDS OF *SCHISTOCERCA CAMERATA* (ORTHOPTERA: ACRIDIDAE) IN THE UNITED STATES¹

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ABSTRACT: *Schistocerca camerata*, a species known previously only from Mexico and Nicaragua, is recorded in the United States for the first time. The presence of this species in southern-most Texas is confirmed by 5 specimens in museum collections and many individuals identified in the field by the authors. *Schistocerca camerata* may be bivoltine, and it inhabits a variety of habitats from forest understory to more open environs.

Schistocerca camerata Scudder was originally described from Sinaloa, Mexico (Scudder 1899) and has a known distribution through most of Mexico and extending into Nicaragua (Dirsh 1974). It is a medium-sized species with light brown coloration, a deep narrow notch in the male subgenital plate, a low, arcuate (in lateral view), finely pitted pronotum, and overlapping anal areas of the tegmina forming a dorsally flattened, triangular area behind the pronotum. The male subgenital plate is uniquely carinate along its border with a triangular apex.

Four specimens collected by the authors and one previously unpublished museum specimen record for the first time the presence of *S. camerata* in southern-most Texas (Hidalgo and Cameron Counties) at approximately the same latitude as northern records of this species from western Mexico (Dirsh 1974).

Schistocerca camerata has been found in the United States in Brownsville, at the Sabal Palm Grove Audobon Preserve, and at Bentsen-Rio Grande State Park near Mission. One United States specimen in the University of Michigan Museum of Zoology (UMMZ) is from Brownsville, Cameron County, Texas collected I/?/?. The four specimens collected by the authors are deposited in the Academy of Natural Sciences, Philadelphia, Pennsylvania (ANSP), the entomology collection at Texas A&M University, College Station, Texas (TAMU), and the author's (JAS) collection (which eventually will be deposited at TAMU). These specimens include: one female, Brownsville, Cameron County, Texas, VIII/20/1993 (JAS); one male, Sabal Palm Grove Audobon Preserve, Brownsville, Cameron County, Texas, XI/11/1994 (ANSP); one female, Sabal Palm Grove Audobon Preserve, Cameron County, Texas, IV/7/1995 (JAS), and one male from Bentsen-Rio Grande State Park, Hidalgo County, Texas, VII/19/1992 (TAMU).

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The authors have observed many additional individuals that were caught, identified, and released. Those specimens were not collected because the localities where they occur are in small preserves in areas undergoing rapid habitat loss. Therefore, the authors did not want to reduce and possibly eliminate the local populations. These observational records are from the Sabal Palm Grove Audobon Preserve, Brownsville, Cameron County, Texas (XI/11/1995 adults, XI/12/1995 adults, X/15/1994 immatures and adults, VIII/21/1993 one female, IX/25/1993 adults, IX/19/1992 fifth instar nymph, and VIII/19/1992 adults), and Bentsen-Rio Grande State Park, Hidalgo County, Texas (VII/19/1992 adults).

The area in southern Texas where *S. camerata* occurs is a subtropical region of the Rio Grande River Valley on the Gulf Coast Plain at approximately sea level. The local habitats where *S. camerata* occurs in Texas vary from thick, dense, scrubby understory at the Sabal Palm Grove to more open habitats (not always forest understory) at Bentsen-Rio Grande State Park.

Dirsh (1974) reported the temporal distribution of *S. camerata* from March to December. The UMMZ specimen extends the known temporal range of *S. camerata* into January. The presence of immatures in the fall (September and October) and adults in the fall (October), spring (April), and summer (July and August) suggests that *Schistocerca camerata* may be bivoltine with one generation starting in the fall and the other possibly starting in the late spring.

The presence of *S. camerata* in southern-most Texas emphasizes the importance of the lower Rio Grande Valley in sustaining U.S. populations of species otherwise only found further south. With rapid habitat loss in this area, habitat preservation is needed now more than ever in order to preserve these local U.S. populations and species as land is lost to new strip malls, homes, and expanded roads and bridges to accommodate increased international traffic and trade.

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